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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,844	11/28/2001	Per-Olof Brandt	032927-025	8450

7590 10/15/2003  
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EXAMINER

NGUYEN, LINH V

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/994,844

Applicant(s)

BRANDT, PER-OLOF

Examiner

Linh V. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-17 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. This office action is in response to applicant's amendment filed on 8/02/03 according to RCE filed on 9/15/03. Claims 1 – 17 are pending on this application.

***Response to Arguments***

2. Applicant's arguments "differential ports" with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 3, are rejected under 35 U.S.C. 102(b) as being anticipated by Udagawa et al. U.S. patent No. 4,827,270.

Regarding to claim 1, Fig. 1a, Udagawa et al. disclose a hybrid coupler (10) comprising four differential ports (Col. 3 lines 19 – 20); and wherein the hybrid coupler is arranged to couple differential radio frequency signal having a certain frequency from at least one port to at least another port (See Fig. 5).

Regarding to claim 2, and 3, Figs. 1 c, 1d, 1f, Udagawa et al. further disclose wherein the hybrid coupler, characterized in that the hybrid coupler is implemented in a micro strip line technology.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 - 7, are rejected under 35 U.S.C. 102(b) as being anticipated by Seidel U.S. patent No. 3911372, in view of Udagawa et al. as applied to claim 1 – 3 above.

Fig. 1 Seidel discloses a hybrid coupler (10) comprising four ports and wherein the hybrid coupler is arranged to couple radio frequency signal having a certain frequency from at least one port to at least another port (See Fig. 1); and wherein the hybrid coupler, characterized in that it is a 3 dB coupler (10), such that power of said frequency supplied to one port is split substantially equally between two other ports, while the remaining port is substantially isolated from the other ports; wherein hybrid coupler characterized in that it is arranged to split the power between the two other ports in such a way that the signals provided at these ports are either in phase or out of phase with each other (Col. 2 line 68); wherein the hybrid coupler characterized in that it is a line-coupled hybrid (Fig. 3). However Seidel does not explicitly disclose four ports of his hybrid coupler are differential port for differential frequency signal.

Fig. 1a, Udagawa et al. disclose a hybrid coupler (10) comprising four differential ports (Col. 3 lines 19 – 20); and wherein the hybrid coupler is arranged to couple

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differential radio frequency signal having a certain frequency from at least one port to at least another port (See Fig. 5).

Seidel and Udagawa et al. are analogous, because both are related to hybrid coupler therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply differential port of hybrid coupler taught by Udagawa et al. to the hybrid coupler of Seidel et al. for the purpose of providing symmetry condition of the radio output signal output signal (Col. 2 lines 30 – 35).

#### ***Allowable Subject Matter***

6. Claims 8 – 17, are allowed.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (703) 305-1934. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday.

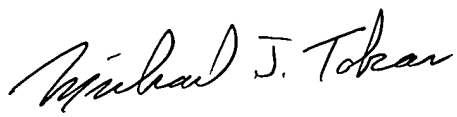
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (703) 305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

LVN

September 25, 2003

  
Michael Tokar  
Supervisory Patent Examiner  
Technology Center 2800